Preserved

App. F. IX-4

Previous References
G.G 33-35 (1-6, 8-10)

1935.6
(G.G.)

File No. 33-35

Serial Nos. 7, 9, 11-15, 17.

Letter References

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. Eight

Part B for Dec 35

SUBJECT.

Supply of unfiltered water to the Gardens in the Hospital zone.

D T130 Dt. 6-12-35

WD 0295—GPB—22,500—18-8-37

Note that the Question of ——
may be dropped

2188

Serial No.

7 Letter no. 3273 G & 4.1937 from the Supdt. G. G. requesting sanction to an estimate for Rs. 4500/- for sinking a well in the Compound of the Victoria Hospital for maintaining the gardens in the Compounds of the Victoria and Vani Vilas Hospitals.

para 2 b, 32 and 36 of this nos. G.G. 33-35— S. Recorded

Q. 1 In another Connection, the Govt. Secy. had observed that water charges for the maintenance of Vani Vilas Hospital Gardens amounts to Rs. 600 p.a. and that this sum is rather heavy. He also observed that it is not desirable to insist upon use of filtered water for the maintenance of lawns. This question was accordingly taken up with the Ex. Engineer, Water Supply &c— Bangalore and the present reference is for orders. It is calculated to prevent unnecessary waste of filtered water and to economise the expenditure on watering charges. The well is also intended to be used by the City Municipality for flushing latrines in the market area. The expenditure is proposed to be

NOTE—Contn. Sheet.

WD 0417—GPB—30,000—8-9-36

5490 — 4 DLS.

File No. G 9-33 of 193 5

General and Revenue Secretariat

Serial No.

borne by the Mulk. and the Gardens Dept. in equal proportions. It is not known if this Mulk is improved to meet their quota.

2. The Supdt. makes no refer. about the recurring charges — Supervision of operation of pump, power charges &c. It is not clear by whom these charges are to be paid — Whether by the Mulk. or the Gardens Dept. It is for consideration whether, it may not first be found that the buildings are under the charge of the P.W.D. The entire work may not be entrusted to the Levy Engineer.

3. H. Levy. Need to be considered of provision of funds —

16.17-4-37

4. Please ask what the recurring cost comes to

21.4.37

TYPING SECT. 28 APR 1937 GENL & REV. SECTT.

5. Sp for further

16. 21.4.37

6. Issued 23.6.37

See overleaf

5490

412

Serial No.	
9	D 711 G.D.R. 6-4-37. To report G.G. Enquire what the recurring charges are expected to be having regard to the fact that payments have to be made for an operator power charge Letter No. 17 b/207-37 from the Supdt G.G. stating that the recurring charges come to about Rs. 100 p.m. 7 The proposal is to sink a well in the Compound of the Victoria Hospital @ a cost of Rs. 4500/- for supplying water the gardens of the Victoria and Various Hospitals, &c. It is calculated to prevent unnecessary wastage of filtered water and to economise the expenditure on watering charges. 8 It is seen from the Supdt's report that the Scheme involves a recurring expenditure of Rs. 100 p.m. or Rs. 1200/- p.a. It is not known if the Mch. is proposed to work only half the expenditure as stated by the Supdt; even supposing that it is proposed to work it, the Gardens Dept. will have to pay Rs 600 p.a. and even now, without the well, the expenditure may not go above Rs. 600 p.a. Subject to orders— Rs 7/87-937.

Seen M.G. 27-6-37

CENTRAL REGISTRY 2 APR 1937 DEVELOPMENT BRANCH

This is only for Hospital.

NOTE—Contd. Sheet.

WD 0417—GPB—80,000—8-9-36

File No. of 193 | General and Revenue Secretariat

Serial No.

Rs 6000/- is the estimated water charges of Vani Vilas Hospital only. The proposed well is expected to supply water to all the three hospitals located in the Fort and also to the Municipal market. What is the present level of expenditure on account of water charges in respect of all the three hospitals?

28.7.37

3 AUG 1937

Draft Submitted
Kg. 3-8-37

Issued
3.8.37

D 1340 dt 7-8-37 2

Draft G. O.

Enquires what the present level of expenditure on account of water charges in respect of all the 3 hospitals which are proposed to be supplied with water from the well is

Ltr No 746 dated 28/8/37 from the Supdt G.H. forwarding a copy of letter from the Range Officer Watersupply on the matter

According to the calculations of the

9-7-37

5 AUG 1937

4125 1205

Serial No.

water supply Dept the cost is expected to come to about Rs 3200/- per annum. on the basis of a supply of 8600 gallons of water per day. The Revenue Dept is reported to have paid Rs 2044-0-0 on the basis of an average Consumption of 5600 gallons per day. Against this the expenses for maintaining the water supply pumping with three engines works up to Rs 1000/- p.m. only. Submitted for orders

Sd/-
for 13/9/37

The letter of the Range officer Chamarajanagar. water works sent with the Superintendent's letter is for perusal. The Range officer says that the scheme is an advantageous one in every point of view. The supply can be increased to almost three times the present supply at half the present cost and that with a view to reduce the capital cost and overhead charges the Revenue dept. and the Municipality may have a big Common well. It is necessary to know if the Municipality is agreeable to share the cost of the scheme and

NOTE—Contn. Sheet.

WD 0284—GPB—30,000—18-8-37

Supply of water to Hospital Gardens

U12 1205 ✓ 6807

G.G File No. 33 of 1935

General and Revenue Secretariat

What quantity of water it ~~gen~~ requires for its market-flushing and urinals

ch. Secy 18.9.37

13 The enclosure may be consulted in the matter.

MS 14 G 14.9.37

14 Supt. Lalbagh 18.22.9.37 from

15 Issued 22.9.37

D 2659 & 23.9.37 14

to report G.G.

Requests him to submit a report in consultation with the municipal Council as to whether the municipality agrees to share the cost of the scheme both initial and recurring and what quantity it requires for its market flushing and urinals

Letter No 3317 dt 31-5-38 from Supt GG forwarding 15 a copy of resolutions of the Bangalore City Municipality by stating that they are not in

CHIEF SECRETARY'S 13 SEP 19 GOVT OF MYSORE.

TYPIST 23 SEP 1937 GENL & REC. SECTT.

DEPUTY SECRETARY 23-9-37 DEVELOPMENT BRANCH

Unfiltered water supply to Hospital Zone

6807

General and Revenue Secretariat | G&R File No. 33 of 1935 | [App. F. III—2

Serial No.

favour of a joint scheme of water supply.

16 The municipality have refused to take part in the scheme. The scheme is quite necessary for the Hospital Zone gardens. The capital cost will be only Rs 4500 and the recurring cost Rs 1200 p.a. This is only ½ the cost of the present use of filtered water. An additional grant of Rs 4500 will have to be sanctioned

3/6 17 The scheme seems to be worth sanctioning if only from the point of view of the Gardens dept. The idea of supplying water for flushing out the W. latrines near the marked area may be adopted as the Dy. Commr agrees to participate in the capital & recurring cost. This will accidentally set at liberty a considerable quantity of filtered water that will be utilised for more house connections & Bread Taps

8/6.

Ch Secy?

18 I should like to discuss this with the Sanitary Engr & Supdt G.G

17.6

10/6

CHIEF SECRETARY * 4. JUN. 193 * GOVT. OF MYSORE.

NOTE—Contn. Sheet.

WD 0284—GPB—30,000—13-8-37

Supply of water to Hospital Gardens.
6807 J 72

G.G. File No. 33 of 1935 | General and Revenue Secretariat

Draft subd. It would be better to ascertain from the Chief Secy. when he would like them to meet him.

21/6

May not 10th or 12th July be suggested as the D.C. session closes on 9th ?

CS
27/6

Ch. Secy.
The 11th would suit me
Duff Cne
Itm
25/6

Draft 108/27/6

The draft as revised is for consideration

JN
27/6

Issue
108/27/6

No. D 2-3 of 1.7.1938 To the Supdt. G.G.'s Secy & Engineer. Requests them to make it convenient to meet the Chief Secy. on the 11th July 1938 at 2 P.M.

" Discussed with the Sanl. Engr & the Supdt G.G. A further letter from the latter may be awaited

Itm
11.7.38

108. 11.7.38

CH... GOVT OF ...

TYPING SECTION ... 1938 ... OTT.

GEN. & REVENUE SECRETARIAT Sec A 1 NOV 1938 DEVELOPMENT BRANCH

72 ✓ 1717 ✓ 2388

Unfiltered water supply to the Gardens in the Hospital Zone

General and Revenue Secretariat

GG File No. 33 of 1935 [App. F. III—2

Serial No. 16

Letter No 1372 dy 20-10-38 from Supt. GG stating that the scheme is not worth taking up in view of the alkalinity of the water spoiling the lawns

20. Ref is invited to paras 26, 32 and 36 of the collection GG 33-35 (1-6, 8, 10) regarding the need for the utilisation of unfiltered supply of water to Gardens of the Hospital zone.

21 The scheme involves a capital cost of Rs 4500 and recurring charges will only be Rs 100 p.m.

22 Now 8600 gallons of filtered water are being used per day on the gardens of the Hospital zone and that of the Tippu Sultan palace at a cost of Rs 3200 a year The well is likely to yield 15000 gallons per day at half the cost ie Rs 1128 p.a; besides liberating a large amount of filtered water. The supply to Basavangudi is stated to be affected on this account.

23 Now the Supt. GG states that the water of the market valley contains 21 parts of chloride and the lawns will suffer by the soil becoming alkaline and states that the scheme is not worth taking up.

24 This scheme is likely to save govt about Rs 2000 p.a besides better utilisation of filtered water. It would be better to consult some experts like Mr Krumbiegel before dropping this scheme

NOTE—Contn. Sheet.

WD 0544—GPB—30,000—2-9-38

Unfiltered water supply to Gardens in Hospital

10

72 ✓ 1717 ✓ 2188

GG File No. 33 of 1935

General and Revenue Secretariat

✓ The following alternative may also be thought of:

If the water of the market valley is unsuitable, why water should not be pumped to those gardens from the old well in the Tippu Sultan's palace is not also clear. This water may be suitable as it might have been used for the gardens in those times. Perhaps this well is temporarily sealed now.

For orders

29/10

The Bureau of Sanitary Engg may perhaps be consulted on this point. There may possibly be a cheap way of treating this alkaline water, in order to rid it of its deleterious ingredients.

Ch. Secy.) 29.10.

Yes. May be done.

31/10

31/10

CHIEF SECRETARY * 29 OCT 193[illegible] * GOVT. OF MYSORE.

OFFICE OF THE DIRECTOR OF HEALTH IN MYSORE 29/11/38 8.1.9

Forwarded with compliments to the Director of Public Health for favour of opinion

By order

K Srinivasaiengar

31.10.38

for Chief Secretary to Govt.

G.O. No 115 of 38-39

8-1-11-38

Letter No. 478 dated 9/10th November 1938 from the Sanitary Engineer, Bureau of Sanitary Engineering, Bangalore to the Director of Public Health in Mysore, Bangalore.

With reference to your memo No. C. 819-2 dated 2nd November 38 forwarding a file of papers connected with unfiltered water supply to gardens in the hospital zone and asking for opinion on some of the points raised in that connection, I have the honour to state that (1) as regards the proposal for pumping water to the gardens from the old well in the Tippu Sultan's Palace, it is doubtful whether the well, being situated on a ridge will give as much water as is required for the gardens by pumping. The chances of getting a good supply of water in the valley near the market are more, than in the other place. Secondly referring to the treatment of water with chemicals to get rid of the chloride content in the water, it may be mentioned it is not possible to treat the water by any chemicals to free it from chlorides. The only method is distillation. To reduce hardness, special plants will have to be provided at a prohibitive cost.

' Copy'

B. Ramanna

Director of Public Health.

Serial No.

Retransmitted with compliments to the Chief Secretary to Government.

Copy of Sanitary Engineer's letter furnishing the information is enclosed.

Director of Public Health.

Drawing of the opinion furnished by the Sanitary Engineer, the scheme has perhaps to be dropped altogether. It would have saved Govt. a good deal of expense, and liberated a good amount of filtered water for human consumption if the water were not alkaline.

The possibility of taking out water from the well in the Tippu Sultan's Palace Compound has also been considered and it is doubted if it would supply the necessary amount of water

Chief Secy.) for perusal.

Dewan)

NOTE—Contn. Sheet.

WD 0544—GPB—30,000—2-9-38

13 218.8 Unfiltered water supply to Hospital Gardens

GG File No. 33 of 1935

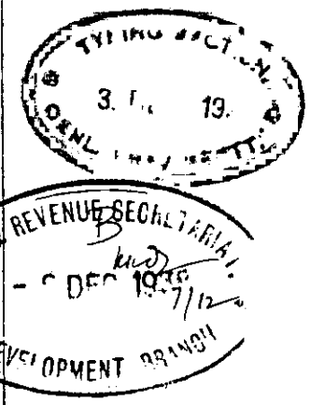
General and Revenue Secretariat

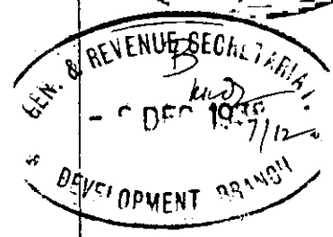
Draft noted

3/12

Yº D 5130 By 6-12-1938 To the Supdt. G.G. States that the question may be dropped in the circumstances reported.

17





G.G. 33-35-7

No. 3273
E.2

OFFICE OF THE SUPERINTENDENT,
GOVT. GARDENS IN MYSORE.

LAL-BAGH, BANGALORE.

Dated 6-4-1937.

FROM

M.Narayana Reddi, Esq., B.Sc(Edin)
~~xHxxC.xxJAVARAYA, Esq. Exg.xFDSxxFRHS.~~
Offg *Superintendent, Government Gardens in Mysore.*

CHIEF SECRETARY. 6. APR. 1937 GOVT. OF MYSORE.

7 APR. 1937 DEVELOPMENT BRANCH

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

Subject:- Unfiltered water supply to the gardens in the - Hospital Zone.

-:0:-

Sir,

D.4818-36
G.G. 33-35-5.

In continuation of this office No.1947 dated 2-3-1937, I have the honour to submit herewith a copy of letter No.2534 dated 31-3-1937 received from the Executive Engineer, Water Supply Division, Bangalore, together with the revised estimate in original for Rs 4500/- for sinking a 12 feet diameter well in the compound of the Victoria Hospital and - pump water from that well. As suggested therein the cost of sinking well and that of the installing pumping may be ordered to be met both by the Municipality and this Department in equal proportion, the necessary - provision required being sanctioned this year.

I have the honor to be

Sir

Your most obedient servant,

Narayana Reddi 5.4.37

Offg Superintendent
Government Gardens

WD 0497—GPB—1,000—24-10-33

193

From

H. C. JAVARAYA, ESQ.,
L.AG., F.L.S., F.R.H.S.,
Superintendent, Government Gardens
in Mysore, Bangalore.

To

Dated

Despatched

Received

General No.
No.

Enclosure No.

Copy of the letter No.2534 dated 31-3-1937 from the Executive-Engineer, Water Supply Division, Bangalore, to the Superintendent, Government Gardens, Bangalore :-

Sir,

Re: Unfiltered water supply to the gardens in the Hospital-Zone.
====

With reference to your letter No.1870 dated 2-3-37 returning the estimate for the above work for Rs. 4645/- without sanction - intimating that the Executive Engineer, Buildings Division, will meet the cost of water used for the gardens, I have the honour to state that the Executive Engineer, Buildings Division was addresse in the matter. That Officer in reply vide his No.1870 dated 2-3-37 says that the cost of water used for the gardens is to be met by your department. As a large quantity of filtered water is being used for the purposes of gardening the supply to Basavangudi is much affected as already reported. I therefore request you kindly to arrange for unfiltered water supply, the cost of which will not be so much as for the filtered water. I herewith enclose for your kind sanction a modified estimate for Rs. 4500/- for sinking a well 12 feet diameter in the compound of the Victoria Hospital and - pump water from that well. If this well is sunk the Municipality may also take water for purposes of flushing latrines located in the new market as they are considering to arrange for unfiltered water supply for this purpose. The cost of sinking the well and that of installing pumping plant may have to be borne by the - Municipality and your Department in due proportion i.e. each to the extent of 50%. As the present scheme of unfiltered water - supply is found to be more economical, a saving of 70% of the present cost of water is expected. I request you therefore kindl -y to consider the suggestion and to arrange for placing necessary funds at the disposal of the Dspartment if you are agreeable.

I have the honor to be
Sir
Your most obedient servant,
Sd. V.Ganesh Iyer,
Executive Engineer,
Water Supply Division.

COPY.

Offg Superintendent
Government Gardens

PUBLIC WORKS DEPARTMENT.

Abstract estimate for unfiltered water supply scheme for watering the lawns in Victoria Hospital Bangalore

No.	Items of work	Unit	Rate Rs.	a.	p	Quantity	Cost
	For pipe line work 4" line 500 ft long.						
	4" C.I. pipe 9' long 56 x 2½	each	6	.	.	84	504
	4" C.I. collar	Each	3	8	.	4	14
	4" C.I. bends	"	8	.	.	4	32
	4" x 3" branch	"	12	.	.		12
	miscellaneous.	L.S					25
	Total						587
	Labour:—						
	E.w. Excavn + refilling etc complete $\frac{500 \times 2 \times 2}{27}$	cyd	.	3	.	7.5	14
	Laying & jointing 4" C.I. pipes with lead joints.	Each	1	2	.	30	34
	50 — 4" cement joints			8	.	40	20
	Total materials + labour		655				681-
	3" line for 1500 ft long.						
	3" C.I. pipes 1500 ft 167 x 1⅛	each	6	.	.	188	1128
	3" C.I. collars	Each	2	8		6	15
	3" C.I. bends	"	6	.		8	48
	3" C.I. valves	"	35	.		3	105
	miscellaneous	L.S					25
							1321
	Labour:—						
	E.w. Excavn + refilling $\frac{1500 \times 2 \times 2}{27} = 225$	cyd	—	3		225	42
	Laying & jointing 3" C.I. pipe lead joints	Each	1	.		80	80

Carried over ....

No.	Brought Forward ...	Unit	Rs.	a	p.	Quantity	Cost
	Laying & joining cement joints	Each		6		150	86
	Fixing valves	"				3	3
	Fixing P.C. luxeli complete		12			3	36
	miscellaneous	L.S					25
	Total						212
	Total materials & labour						1553
II	Cost of pumping set S.H.P.	Each	800.			1	800-0-0
	cost of Electric connections	L.S					200-0-0
	Suction & Delivery connections						100-0-0
	Total						1100/-
III	Constructing pump house near the well 12'x8' covered & 12" Silly 100	Sft	2	8		100	250
IV	Constructing well 12' inner dia: & 30' in depth						
	1) C.W. $\frac{22}{7} \times \frac{256}{4} \times \frac{30}{3 \times 9}$	cyl	1	4		225	280
	2) For boulders removal &c	L.S					100
	3) For Stone revetment						
	$\frac{22}{7} \times 14 \times 30 \times 2$	Sft		3		2640	495
	Bailing water	L.S					250
	Covering Slab & girders &c	L.S					200
							1325/-
V	miscellaneous works such as connecting Hydrant &c	L.S					286

WD 0822—GPB—10,000—23-12-33

No.	Brought forward ...	Unit	Rs.	a.	p.	Quanitity	Cost
	Abstract						
I	Pipe line						1533
II	Pumping plants						1100
III	Pump house						280
IV	Cost of Sinking 4 well						1325
V	Hydrants						286
	Total						4494
	or Say Rs 4500/-						

P. Ganesa
30.3.27
Executive Engineer,
Water Supply Division.

Carried over

Appendix F G—1]

SUBJECT .....

.....

.....

Diary No. of letter replied to.....

General and Revenue Secretariat

( )

the *193*

Date of issue 26-4-37

Signed by Mr K. Subba Rao

List of enclosures.....

Copied by 24/4

Examined by.....

Section G.G

File No. 33-35

Serial No. 9

No. D 7119.

To

The Supdt. G.G.

Sir,

With reference to your letter No 3273 G 6-4-1937 requesting sanction to an estimate for Rs. 45-00 for sinking a well in the Compound of the Victoria Hospital for maintaining the gardens in the Compound of the Victoria and V.V. Hospitals I am directed to enquire what the recurring charges are expected to be (60) Commission, having regard to the fact that Government have to bear the whole for an

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE

General and Revenue Secretariat

No. D 7119/G-G-33-35-9 *Bangalore, Dated,* 24th April 1937.
26 4

From

The *Chief Secretary to the Government of His Highness the Maharaja of Mysore.*

To

The Superintendent,

Government Gardens, Bangalore.

Sir,

With reference to your letter No. 3273 dated 6th April 1937 requesting sanction to an estimate for - Rs.4,500 for sinking a well in the compound of the Victoria Hospital for maintaining the gardens in the compound of the Victoria and Vani Vilas Hospitals, I am directed to enquire what the recurring charges are expected to be having regard to the fact that payments have to be made for an operator, power charges etc.

I have the honour to be,

Sir,

Your most obedient servant,

Isd/ K. Subba Rao

for Chief Secretary to Government.

TSS.

G. G 33-35-11

GOVERNMENT OF MYSORE

No. 3655

626 V 11-5-37

From

Dr L.S.Doraswami, M.Sc(Lond) Ph.D(Lond),
Offg Superintendent, Govt Gardens in Mysore,
Lalbagh, Bangalore.

CHIEF SECRETARY * 13 MAY 1937 * GOVT. OF MYSORE

To The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

Sir,

With reference to your letter No.7119/GG 33-35-9 dated 24/26th ultimo and subsequent reminder thereto, re: sinking a well at a cost of Rs 4500/- in the compound of the Victoria Hospital for maintaining the gardens, I have the honour to state that the Executive Engineer, Water supply - Division, Bangalore, has been requested in this office No. 3524 dated 29th ultimo to furnish the necessary particulars required in your letter under reference (vide copy enclosed for kind perusal). As soon as the information is received, it will be sent to you.

I have the honor to be
Sir
Your most obedient servant,

L.S. Doraswami
Offg Superintendent
11.5.37 Government Gardens

11.5.37

DEPT. BRCH. 31 MAY 1937 28.5.37 DEVELOPMENT BRANCH

Copy of the letter No.3524 dated 29-4-37 from the - Offg Superintendent, Government Gardens, Bangalore, to the Executive Engineer, Water supply Division, Bangalore:-

Dear Sir,

I herein enclose for your information a copy of letter No.D 7119/GG 33-35-9 dated 26th instant from the Chief Secretary to Government of Mysore, requesting me to furnish information in respect of your proposal for sinking a well in the compound of the Victoria - hospital, Bangalore, at a cost of Rs 4500/-. I shall thank you to kindly furnish the necessary particulars required.

Thanking you.

Yours sincerely,

Sd. L.S.Doraswami

Offg Superintendent
Government Gardens

COPY.

L.S. Doraswami
11/5

Offg Superintendent
Government Gardens

11.5.37

GG 22-35-11

GOVT. SECRETARIAT
412
20 JULY 1937
DEVELOPMENT BRANCH

No. 176
GT

Office of the Superintendent,
Government Gardens in Mysore
Lalbagh,
Bangalore, dated, 20-7-37

From

Dr L.S.Dorasami, M.Sc(Lond) Ph.D(Lond)
Offg Superintendent, Govt Gardens in Mysore,
Bangalore.

To

CHIEF SECRETARY
GG
20 JUL. 1937
GOVT. OF MYSORE

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

Re Sinking a well in Vani Vilas Hospital, Bangalore.

Sir,

With reference to correspondence ending with your letter No.D 7119 GG 33-35-9 dated 24/26th April last re. the above, enquiring what the recurring charges are expected to be having regard to the fact that payments have to be made for an operator, Power charges etc, I have the honour to state that it works up to Rs 100/- per month as per copy of the Statement furnished by the Executive Engineer, Water supply Division, Bangalore.

I have the honour to be

Sir

Your most obedient servant,

L.S.Dorasami
13/7

Offg Superintendent
12.7.37 Government Gardens

Financial aspect of the R Scheme of Water supply to the Gardens in Fort, from well water.

Capital cost Rs. 4,500/-.

Working costs per month at six hours per day.

I.	Electric Power on 5 H.p. set at 4 units per hour 30 x 6 x 4 = 720 units at 0-0-9 per unit ..	L.S.	Rs. 38/-
II.	Oils, lubricants per month.	L.S.	3/-
III.	Operator at Rs.1/- per day		30/-
IV.	Depreciation on plant at 10½% on Rs. 1000/-		11/-
V.	Depreciation on pipe line system and unforseen works.	L.S.	18/-

Total recurring charges per month:- Rs. 100/-

Sd. V.Ganesh Iyer,

Executive Enginser,
Water Supply Division.

COPY.

L.S. Srinivasan
13/7

12.7.37

Offg Superintendent
Government Gardens

6/8/37

Appendix F G—1]

SUBJECT .....

.....

.....

Section 8(1)

File No. 33-37

Serial No. 12

No. D 1340

Diary No. of letter replied to.....

To

The Supdt. G. G.

Sri

General and Revenue Secretariat

( )

the *193*

Date of issue 7-8-37

Signed by M. K. Subba Rao

with refce. to your letter no 17 b 8. 20.7.1937 furnishing information about the recurring charges that are likely to be incurred in connection with the working of the proposed well in the Victoria Hospital Compound, I am directed to enquire whether the present level of expenditure on account of water charges in respect of all the three Hospitals which are proposed to be supplied with water from this well, is

I have the

List of enclosures.....

Copied by .....

Examined by.....

WD 0521—GPB—30,000—12-3-37

11.8.37
Dr C. Leby

No. 746/Eno.one.

GOVT. SPORTSMAN'S 30 AUG. 1937 DEVELOPMENT BRANCH

GOVT. SPORTSMAN'S 1 SEP. 1937 DEVELOPMENT BRANCH

From

Office of the Superintendent,
Government Gardens in Mysore,
Lalbagh,
Bangalore, Dated, 28-8-1937.

Dr L.S.Dorasami, M.Sc(Lond) Ph.D(Lond),
Offg Superintendent, Government Gardens in Mysore,
Lalbagh, Bangalore

1205

GG 33-35-13

CHIEF SECRETARY. GG. 30 AUG. 1937 GOVT. OF MYSORE.

To

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

Sir,

With reference to correspondence ending with your letter No.D 1340 GG 33-35-2 dated 7th instant regarding proposal for sinking a well for supply of water to Hospital gardens, enquiring what the present level of expenditure is on account of water charges in respect of all the three Hospitals, I have the honour to submit herewith, for information and orders of Government, a copy of reply received from the Range Officer, Chamarajendra Water Works, Bangalore, furnishing all the information required in detail.

I have the honour to be

Sir

Your most obedient servant,

L.S.Dorasami
28/8

Offg Superintendent
Government Gardens

Copy of the letter No.859 dated 20-8-37 from the Range Officer, Chamarajendra Water Works, Bangalore, to the Superintendent, Government Gardens in Mysore, Bangalore:-

Sir,

With reference to your letter No.581 dated 16-8-37 making certain enquiries about the proposals of using unfiltered water for garden -- purposes near the Vani Vilas Maternity Hospital area, I have the honor to reply as follows:-

1. Victoria Hospital.

Free allowance per quarter ..	480000	gallons
Average excess quarterly consumption ..	80000	"
Total consumption per quarter	1280000	"
Total consumption per day	14222	"
Portion out of this used for gardens - can as a rough approximate be as the - very minimum ..	2000	"

2. Minto Opthalmic Hospital.

Free allowance per quarter	240000	"
Average excess quarterly consumption	508000	"
Total consumption per quarter	748000	"
Total consumption per day	8311	"
Out of this, the gardens can be presumed - to take about 1000 gallons per day, as the area is less	1000	"

3. A. Vani Vilas Maternity Hospital(Inside Garden proper).

Consumption in 1936-37	224000	"
Daily average.	620	"
(B). Lawns consumption in 1936-37..	1377000	"
Daily average.	3825	"
(C) Gardens near Parvathi Chandrasekhara ~~Gardens~~ Dispensary ..	86000	"per year.
Daily average..	240	"

4. Tippu Sultan's Palace gardens in 6 months..73000 gallons.
Daily average .. 210 "

5. Gardens near Sajjan Rao's wards
consumption per year 256000 "
Daily average.. 710 "

Thus these five ~~g~~ concerns in toto for garden purposes alone a daily quantity of 8605 gallons costing 8.67 86/- per day if actually separated and charged as such. This amounts to ₹ 258/-per month or ₹ 3096/-per year or about ₹ 3200/- per year including meter hire and other charges. since however the items 1 and 2 have been merged away under the free allowances of the Hospitals and are thus not separated the actual costs received last year 1936-37 from the rest amounted to ₹ 2044/8/- out of which Tippu Sultan Palace gardens took water only for six months.

It is thus seen that for an average of only 5600 gallons per day drawn in this area the Garden Department has paid Rs 2044/8/- a year. Whereas the data given in this office No.2863 of 17-2-1937 to the Executive Engineer and No.3293 of 17-2-1937 to Gardens Superintendent for the unfiltered water well scheme proposes to supply an average daily quantity of 12000 gallons and a monthly cost of Rs 68/- or Rs 816/-per year only.

Subsequently in this office No.17 of 2-7-37 to the Executive Engineer and No.29 of 2-7-37 to Gardens Superintendent these data have been further revised adding huge rates of interest and depreciation and even in spite of such additions it has been estimated that the costs per year for a daily pumpage of 15000 gallons at six hours every day will amount to Rs 94 x 12= Rs 1128/-. Thus almost three times the present supplies of filtered water can even then be had at nearly half the present costs of Rs 2044/8/-. Surely this ought to be a most convincing reason to have the unfiltered water scheme.

In this connection it can also be pointed out that the Laundry of the Victoria Hospital is paying Rs 720/- every year or Rs 60/- per month for --- 2000 gallons daily used by it. Taking 5600 gallons per day now paid by the Gardens Department and 2000 above there will be 7600 gallons daily to be pumped. Out of this, the Gardens Department can charge the Medical Department for the Laundry water of 2000 gallons per day and get some revenue - say at 5 or 6 annas per 1000 gallons or more. Also it can relieve the - Victoria and Minto Hospitals of their daily consumption of nearly 3000 - gallons for their gardens from their filtered water supplies and can recove -r from them also these costs. For all these duties put together the daily supplies will easily be below 11000 to 12000 gallons and a large well in Market valley area ought surely to yield this quantity as it used to in - days prior to 1900. It depends on the well capacity. Further as already - observed the City Market also can easily have its Market flushing as well as urinals at this place by a separate well of their own or by a large common well which will go to reduce the capital costs considerably to each Department.

I therefore most earnestly pray once again that the Government may consider the feasibility of these proposals which will also have other - very beneficial effects thus :-

P.T.O.

1. Subsoil drainage in the low valleys near Market.

2. Relieving large quantities of costly filtered water for the more legitimate domestic needs of the Citizens who will need more water for their flushing etc, needs.

3. Far cheaper and more economical methods of watering the Gardens.

4. Providing urinals and other conveniences to the public at a much cheaper rate and ensuring better sanitation.

I have the honour to be

Sir

Your most obedient servant,

Sd. C.N.Shama Rao,

Range Officer,
Chamarajendra Water Works.

COPY.

L.S. Dr. Bauer 28/8

Offg Superintendent,

Government Gardens in Mysore.

VR 28/8

Appendix F G—1]

SUBJECT .....

.....

.....

Section Ff -

File No. — 33-35

Serial No. 14

No. D 2657

Diary No. of letter replied to.....

To

The Supdt. G. G.

Sir,

With reference to the correspondence ending with your letter No. 74 dg 28.5.37 regarding the proposal for sinking a well in the Victoria Hospital Compound for supply of water to the General Hospitals in the neighbourhood, I am directed to request that the Commr. Bangalore City may be consulted in the matter and a report submitted if the City is agreeable to share the Capl. & Rec. Recurring both initial and recurring

General and Revenue Secretariat

( )

the *193*

Date of issue 28.5.37

Signed by Dr. K. Subbarao

List of enclosures.....

Copied by .....

Examined by.....

WD 0521—GPB—30.000—12-3-37

and what quantity it requires
for its market- planning and
approvals

I remain

Yours sincerely

Mr. Gray

For A. Lees

GG 33-35

No. 2446

OFFICE OF THE SUPERINTENDENT,
GOVT. GARDENS IN MYSORE,

LAL-BAGH, BANGALORE.

Dated ..15-2-.. *1938.*

1205 ✓ 4467

FROM

DR. L. S. DORASAMI, M.SC. (LOND.), PH.D. (LOND.),
Offg. *Superintendent, Government Gardens*
in Mysore, Bangalore.

CHIEF SECRETARY
16 FEB 1938
GOVT. OF MYSORE

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

Sir,

With reference to your reminder ending with No.D 4356 dated 15-12-37 in respect of submission of a report about the sharing of the cost of the Hospital Zone water supply scheme by the Municipality, I have the honour to submit herewith a copy of D.O.letter No.A3.1853/36-37 dated 11-2-38 received from the Municipal Commissioner, Bangalore city, for the ---- information of Government.

I have the honour to be
Sir
Your most obedient servant,
L. S. Dorasami
15/2
Offg Superintendent

Subd. for perusal with references.
The subject is still pending before the municipality. If approved the Supt. G G will be asked to settle the subject early
18/2

The Supdt. G.G. Can only write to the Commr. He will Consult Law & do the needful questions soon. The Commissioner may perhaps be addressed again by the Supdt. requesting speedy disposal
16/2

Draft subd.

GEN. & REVENUE SECRETARIAT
DEVELOPMENT BRANCH

Issued No D 6201 of 24-2-38 to Supdt. GG. Requests him to address the Mun. Comrs. for the speedy disposal of the case

Copy of the D.O.letter No.A3.1853/36-37 dated 11-2-1938 from the Municipal Commissioner, City Municipality, Bangalore to the Superintendent, Government Gardens, Bangalore:-

Dear Sir,

With reference to your letter No.2358 dated 7-2-38 in the matter of furnishing the opinion of the Municipality re sharing the cost in respect of water supply schemes in the -- Hospital Zone etc, I write to say that the subject is still pending before the Municipal Council for consideration.

Yours sincerely,
Sd. S.Narayana Rao,

COPY

L.S. Narasaiah 15/2

Offg Superintendent
Government Gardens
GTC 15/2

Appendix F G—1]

20

SUBJECT ..... Sharing of cost of the Hospital zone water supply scheme by the municipality.

Section G G

File No. 33-35

Serial No.

Diary No. of letter replied to.....

No. D 6201

To

The Supt

Govt Gardens

General and Revenue Secretariat

( )

the *193*

Sir,

With reference to the correspondence ending I am directed to invite ~~with reference to~~ your ~~office~~ letter No 2446 dt 15-2-38 on the above subject and am directed to ~~kindly~~ to address the Municipal Commissioner requesting a speedy disposal of the case

I have the

19.2.38

for Chief Secy

Date of issue..... 24-2-38

Signed by ..... Mr K. Srinivasan

List of enclosures.....

Copied by .....

Examined by.....

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE

General and Revenue Secretariat

No. D 6201/GG

Dated, Bangalore, 24th February 193 8

21

From

The Chief Secretary to the Government of His Highness the Maharaja of Mysore.

To

The Superintendent,
Government Gardens.

Sir,

Subject:- Sharing of cost of the Hospital Zone water supply scheme by the Municipality.

With reference to correspondence ending with your letter No.2446 dated 15th February 1938 on the above subject, I am directed to request you to be so good as to address the Municipal Commissioner requesting a speedy disposal of the case.

I have the honor to be,
Sir,
Your most obedient servant,

for Chief Secretary to Government.

SR/2

GG B3-35_16. 15

No. 3317. Enc 1

OFFICE OF THE SUPERINTENDENT,
GOVT. GARDENS IN MYSORE,

LAL-BAGH, BANGALORE.

Dated 30/5/38.

6807

GEN. & REVENUE SECL. 1-6-38 DEVELOPMENT BRANCH.

FROM

DR. L. S. DORASAMI, M.Sc. (LOND.), PH.D. (LOND.),
Offg. *Superintendent, Government Gardens in Mysore, Bangalore.*

To

GG. CHIEF SECRETARY, 31 MAY 1938 GOVT. OF MYSORE.

The Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore

Subject:- Sharing of cost of the Hospital Zone water supply scheme by the Municipality.

Ref^e 1&2

Sir,

With reference to your letter No.D 6201/GG 33-35 dated 24-2-1938 I have the honor to state that the Municipal Commissioner, Bangalore City states in his letter No.A3.1926/36-37 dated 28th instant that the City Municipal Council have at their meeting held on 10-5-38 resolved that they are not in favour of having a joint scheme for supply of water to the Hospital Zone and the Market (Vide copy enclosed for kind information).

I have the honor to be

Sir

Your most obedient servant

L. S. Dorasami 30/5.
Superintendent

30/5/38

Copy of the letter No.A3.1926/36-37 dated 28-5-1938 from the Municipal Commissioner, City Municipality, Bangalore, to the Superintendent, Government Gardens, Bangalore:-

Sir,

Subject:- Sharing of cost of the Hospital Zone water supply scheme by the Municipality.

In continuation of this office memo of even number dated 18-4-1933 regarding above, I have the honor to state that the City Municipal Council have at their meeting held on 10-5-38 resolved that they are not in favour of having a joint scheme for supply of water to the hospital zone and the market.

I have the honour to be

Sir

Your most obedient servant

Sd. K.Rangappa,

For Municipal Commissioner.

COPY.

L. S. Srinivasan 30/5-

Superintendent

Government Gardens

30/5/38

Appendix F G—1]

SUBJECT 24

Unfiltered water supply to the Hospital Zone

Section GG

File No. 33-35

Serial No.

Diary No. of letter replied to .....

No. G.2.-3

To

Dear Sir,

General and Revenue Secretariat

( )

the *193*

I am desired to state that the Chief Secy. to Govt would like to discuss the above subject with you - and (1) the Sanitary Engineer/ (2) the Supdt GG ~~Supdt GG~~ on the 16th July 38 ~~at 2 p.m.~~ and to request you to make it convenient to meet him on that Date at 2 p.m. in his chamber at the Public Offices.

Yours sincerely

16/7/38

Date of issue 1-7-38

Signed by .....

To

1) Dr. L. S. Doraiswami, MBE, Ph.D
Supt G-G

2) Mr Krishna Iyengar
Sanitary Engineer

List of enclosures ..... G 2.

Copied by .....

G 3

Examined by .....

GENERAL AND REVENUE SECRETARIAT

Bangalore, Dated, ~~23th June~~ *1938.*

D. O. No. D-2-3/G.G.33-38-1-7

Subject - Unfiltered water supply to the Hospital Zone.

Dear Sir

I am desired to state that the Chief Secretary to Government would like to discuss the above subject with you and 1) Secy. to Govt. 2) Supdt. Engr. on the 11th July 1938 and to request you to make it convenient to meet him on that date at 2 P.M in his chambers at the Old Public Offices.

Yours sincerely,

D-2. 1) Dr Doraiswami

D. 3. 2) Narasimha Iyengar.

DLJ 11/7 30/6

PLEASE QUOTE
No. 37
Enc. .....
In reply.

All communications to be addressed to the Superintendent.

DR. L. S. DORASAMI, M.Sc. (LOND.), PH.D. (LOND.),
~~Offg.~~ *Superintendent.*

TELEGRAM :—"HORTI"
TELEPHONE No. 2324

OFFICE OF THE SUPERINTENDENT.
GOVT. GARDENS IN MYSORE,
LAL-BAGH, BANGALORE, S. INDIA.

Dated.....4th July.....*193 8*.

5

GEN. & REVENUE SECRETARIAT.
- 5 JUL 1938
DEVELOPMENT BRANCH.

Dear Sir,

As desired in your D.O.No.D 2/GG 33-55 dated 1-7-1938, I shall meet the Chief Secretary to Government of Mysore on 11th instant at 2 P.M. in his Chambers to discuss about the unfiltered water supply to the Hospital Zone.

Yours sincerely,
L. S. Dorasami
4/7

VR 4/7

To

K.Srinivasan, Esq., B.Sc.,
Assistant Secretary to Government,
General and Revenue Secretariat,
Bangalore.

G.G.
Await reply from Secy. Engr.
168
5-7

Appendix F G—1]

2/

SUBJECT ..... Unfiltered ~~supply of~~ water supply to Hospital zone

Section GG

File No. 33-35

Serial No.

No. D1857

Diary No. of letter replied to.....

To

Dear Sir,

I am desired to invite your attention to the discussion you had with the Chief Secy and the Sanitary Engineer on the above matter in July 1938 questions and to enquire when your further reference in the matter may be expected

Yours faithfully

11/9/9.

To

Dr. T. S. Doraiswamy, M.Sc, M.D

Dir. Instt GG.

General and Revenue Secretariat

( )

the *193*

Date of issue..... 15.9.38

Signed by .....

D.O. Subd

Issue 11/9/38

11/9/9

TYPING SECTION. 10 SEP. 193 GENL. & REV. SECTT.

List of enclosures.....

Copied by .....

Examined by.....

PLEASE QUOTE
No. 1059
Enc. 3
in reply.

GG 33-35

TELEGRAM:—"HORTI"
TELEPHONE No. 2324

All communications to be addressed to the Superintendent.

DR. L. S. DORASAMI, M.Sc. (LOND.), PH.D. (LOND.),
Offg. *Superintendent.*

OFFICE OF THE SUPERINTENDENT,
GOVT. GARDENS IN MYSORE,
LAL-BAGH, BANGALORE, S. INDIA.

28

Dated 27/9/ *193 8.*

GEN. & REVENUE SECRETARIAT. 1938 DEVELOPMENT BRANCH.

1717

Reference:- Unfiltered water supply to - Hospital Zone.

Dear Sir,

With reference to your D.O.No.D 1854/GG 33-35 dated 15th instant regarding the above, I write to inform you that urgent reminders have been given to the respective officers concerned to furnish particulars. As soon as a reply is received further reference in the matter will be submitted to Government for orders.

Yours sincerely,
L/S. Dorasami
27.9.38.

GG/2219

To

K.Srinivasan, Esq., B.Sc.,
Assistant Secretary to Government of Mysore,
General and Revenue Secretariat,
Bangalore.

GG. 27.9.38

GEN. & REVENUE SECRETARIAT. OCT 1938 DEVELOPMENT BRANCH.

G.G. 33.35

No 1372
Encls. 4

From

Office of the Superintendent,
Govt Gardens in Mysore,
Lalbagh,
Bangalore, Dated, 20.10.38

Dr L.S.Dorasami, M.Sc(Lond) Ph.D(Lond),
Superintendent, Government Gardens in Mysore,
Bangalore.

To

Chief Secretary to the Government of
His Highness the Maharaja of Mysore,
Bangalore.

CHIEF SECRETARY. 21. GOVT. OF MYSORE.

GEN. & REVENUE SECRETARIAT. 2188 1938 DEVARAJA MARKET BRANCH.

Utilising the sub-soil water in Market Compound for the sake of gardens and lawns in Hospital Zone.

-:0:-

Sir,

In continuation of this office letter No.1059 dated 22nd - September 1938 re: the above, I have the honor to state that the Sanitary Engineer was consulted in the matter and he opined that the water in the Vani Vilas Hospital would be brackish and ~~which~~ was not suitable for lawns and gardens and that it should be examined chemically. On referring the matter to the Water Works Department, the Range Officer, Chamarajendra Water Works, writes that he got the sample of water examined and analysed by the Superintendent, Public-Health Institute, a copy of the results obtained is also enclosed herein together with a copy of his letter Nos.1484 dated 5-9-38 and No.1643 dated 13th instant received from the Range Officer, Bangalore for the information of Government. In the first letter he states - that the sample contains 21.5 parts of Chloride which cannot be - regarded as unqualified for garden use although the Superintendent has observed that so far as the taste is concerned it is a bit brackish. In his second letter dated 13th instant, he has furnished some -- extrats from Dr Thresh and Beale who are said to be great authorities in England on matters connected with waters and water suppliers and opines that the scheme is worth trying on the authoritative pronouncements of experts.

2. I am of opinion that the scheme proposed is not worth taking up in view of the following reasons although it is economical as - pointed out by the Range Officer.

1. The lawns are continually being watered almost everyday and if they should be watered with brackish water there will be much - sedimentation of the alkali. There will be more of this during th

L.S.D.

30

the summer weather with the result that the whole area will become alkaline very soon. When once the land becomes alkaline, there is very little scope for maintaining good lawn or for good grass to grow.

2. Further the authority quoted by Range Officer holds good only to temperate climates where there is little summer and much of cool and cold weather. I am not aware of any results published by Experts on the use of brackish water to lawns in Sub-tropical or tropical climates.

I have the honor to be

Sir

Your most obedient servant

L S Srinivasan
Superintendent

20/10

Copy of the letter No.1643 dated 13-10-38 from the Range Officer, Sri Chamarajendra Water Works, Bangalore, to the Superintendent, Government Gardens, Bangalore:-

Sir,

In continuation of this office No.1484 dated 5-10-38 reporting about the analysis of the samples of water collected in the Market valley, I have the honor to enclose extracts from Dr Thresh & Beale who are acknowledged as the great authorities in England on matters connected with waters and water supplies:-

Page 85. Dr Thresh and Beales Book on examination of waters and - Water supplies.

" Some years ago the local Government Board withheld their - sanction to the completion of a deep well because the water obtained contained 107 parts of Sodium Chloride per 1,00,000 when it was pointe out that water containing more chlorides was in use in several parts of the country and that the public supply on foulness Island contain 141 parts of salt and had been used for very many years both for - domestic and for farm purposes without any objection having been made to it the sanction required was granted. As the result of inquiries made the opinion was expressed that anything up to 100 grains of salt per gallons of water was certainly harmless". Page 94. Same book.

Therefore it may be asserted that under 100 parts of salt per gallon should not cause a water to be considered impure or unwholesome The experience of certain communities in Essax supports this view as water containing 100 grains of salt per gallon have been in use for many years without any appreciable effect.

These are the authoritative pronouncements of experts which I have thought worth mentioning even for drinking waters.

Hence I should think that for garden purposes there may not be any objection whatever.

I have the honor to be
Sir
Your most obedient servant,
Sd. C.N.Shama Rao,
Range Officer,
Chamarajendra Water Works.

COPY.

L.S. Omraeen
Superintendent 20/x
Government Gardens.
ORJ 20/10

Copy of the letter No.1484 dated 5-9-38 from the Range Officer, Chamarajendra Water Works, Bangalore, to the Superintendent, Government Gardens, Bangalore:-

Sir,

Utilising the subsoil water in Market valley for the sake of gardens and lawns in the Hospital zone.

With reference to your letter No.572 dated 23-8-38 and your reminder No.R.12 dated 19-9-38 I have the honor to enclose herewith the results of chemical analysis of a sample of water collected fro a well near the Market as analysed by the Superintendent, Public - Health Institute and to observe as follows.-

The chloride content is only 21.5 parts per 1,00,000. I have heard it said that water containing more than 45 to 50 parts per 1,00,000 is regarded as unsuited for use for gardens. But this - sample contains 21.5 parts and thus it cannot be regarded as - unqualified for use for gardening although the Superintendent has observed that so far as the <u>taste</u> is concerned it is a bit brackish

Further the Superintendent has remarked that there is plenty o nitrites in the water which is known to be very favourable for - gardens and fruits. As a matter of fact the previous history of the entire Market valley is well known to Bangaloreans. Becuase it was here that they were growing rich vegetables as well as apples and figs. In fact I have seen those plants in this valley with my own eyes when I was young.

Even today all along this valley in the Victoria Hospital, the Narasimharaja Road up to Town Hall and even beyond the grass is - never seen to have gone dry and the garden lands are still rich and are being used for the above said purposes.

Hence it can certainly be said that this water will be -- excellently suited for the purpose of gardening and lawns in the Hospital zone areas. However I wish to make the following point - clear to you:-

After all it is a matter in which you are to be the sole - responsible agent. A suggestion has been given by this office that here is a method of saving thousands of rupees by using this -

subsoil water at R. 0-3-0 per 1000 gallons than pay to the Water - Supply Department and through them in cash every year to the ---- Municipality for filtered water for gardens at Re.1/- per 1000 gals. which is considered as an unnecessary luxury by other Engineers in - India at a time when unfiltered water is made available here far - cheaper and where such unfiltered water is the rule even in rich - places like New Delhi, Hyderabad, Bombay etc unlike our comparatively poorer Mysore.

The rest is left to you for being taken up.

I have the honor to be

Sir

Your most obedient servant,

Sd. C.N.Shama Rao,

Range Officer,
Chamarajendra Water Works.

COPY

L.S. Ommaeen 28/
Superintendent
Government Gardens
(-R) 20/10

Page 79:- Dr Thresh and Beales Book "The Examination of Waters and water supplies".

" Another cuase of turbidity is due to the water pipes becoming conveyous of electric current. Recently a deep well was bored in the City of London to supply a large block of houses. The water was normal for that area and having been passed as satisfactory it was connected with the cistern and supplied throughout the building. In a few weeks a sample was sent to us of water drawn from one of the taps and it was most distinctly turbid. Fortunately we knew that a similar well had been sunk quite near to supply an adjacent block of buildings and the water drawn from the taps here was perfectly clear and bright. We could only infer that the service pipes were in contact with some wire carrying electric current and suggested that the pipes should be carefully examined Something of the kind was discovered and the defect was remedied.

In many Towns recently corrosion of mains and of meters has been traced to stray currents from the Tramway lines. This effect of Electric currents and including galvanic action must therefore always be borne in mind wher investigating causes of turbidity.

Page 89 same book.

" In house supplies faulty electric wiring may have an effect upon the water due to contact with electric wire with the service pipe setting a galvanic action between the lead pipe and the brass tap, traces of copper were found in a water as reported by Sir Alex Houston in his reports of 1910-11.

Several cases have recently come to our notice in which water has attached the service pipes, the action being due to the pipes being utilised for "Earthing" electric currents.

EXTRACT.

Sd. C.N.Shama Rao,
Range Officer,
Chamarajendra Water Works.

COPY.

L. Sommaraj
Superintendent
Government Gardens

H .1230 29-9-38
No. 9.40-7

Results of Chemical Analysis of the undermentioned samples of water.

Name of water.	Total solids.	Chlorine.	Free-Ammonia.	Albuminoid Ammonia.	Total Hardness.	Permanent Hardness.	Temp. Hardness.	Nitrites.	Nitrates.	Oxygen absorbed in 2 Hrs.	Poisonous metals.	NH value.	
Sample of water near City Market.	125.0	21.5	0.008	0.038	46.0	40.0	6.0	Present in plenty	Present.	0.35	Nil.	7.2	The sample is clear, colourless & odourless & brackish to taste.

The Public Health Institute,
Bangalore,
28th September 1938.

To

The Range Officer,
Chamarajendra Water Works,
Bangalore.

Sd. G.M.Dominick,

Superintendent,
Public Health Institute.

COPY.

L.S Ammanni
Superintendent 29/x
Government Gardens
GRJ 20/10

33

Appendix F G—1]

SUBJECT.....

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.....

Diary No. of letter replied to .....

General and Revenue Secretariat

( )

the *193*

Date of issue.....6.12.38.....

Signed by M Sk. Venkataram Q...

List of enclosures.....

Copied by .....

Examined by.....

Section GG

File No. 33-35

Serial No. 17

No. D 5730

To The Supt. GG

Sir,

With ref. to correspondence ending with your letter No 1372 dt 20-10-38 re- the sinking of a well in the Compound of the Victoria Hospital for the Hospital zone gardens, I am directed to state that the question may be dropped in the circumstances reported

A copy of letter No 478 dt 10-11-38 on the subject received from the Sanitary Engineer to the Deputy C.C. is sent herewith for your information

I have etc

for Chief Secy.

5/12

WD 0278—GPB—30,000—4-3-38

GOVERNMENT OF HIS HIGHNESS THE MAHARAJA OF MYSORE

General and Revenue Secretariat

Dated, Bangalore, 5th December 1938.

No. D 5130-9.9 33-35-1721 6 15

From

The Chief Secretary to the Government of His Highness the Maharaja of Mysore,

To

The Superintendent,
Government Gardens.

Sir,

With reference to correspondence ending with your letter No.1372 dated 20th October 1938 regarding the sinking of a well in the compound of the Victoria Hospital for the Hospital Zone Gardens, I am directed to state that the question may be dropped in the circumstances reported. A copy of letter No.478 dated 10th November 1938 on the subject from the Sanitary Engineer to the Director of Public Health is sent herewith for your information.

I have the honor to be,
Sir,
Your most obedient servant,

DH

for Chief Secretary to Government.

SR/2/1